Homework B- chapter 12/13

1. A firm combines two resources, A and B, to produce an output level Q in a purely competitive market. The cost of a unit of A is $5 and the cost of a unit of B is $12. The marginal revenue product of A is $5 and the marginal revenue product of B is currently $12. What would you recommend that the firm do given this resource combination?

2 . (Last Word- chapter 12 Why are banks using more automatic teller machines (ATMs) and employing fewer human tellers? What economic principle is illustrated about resource markets by this example?

3. Suppose a single firm has the marginal revenue product schedule for a particular type of labor given in the following table.

|  |  |
| --- | --- |
| **Number of units of labor** | **MRP of labor** |
| 1 | $12 |
| 2 | 11 |
| 3 | 10 |
| 4 | 9 |
| 5 | 8 |
| 6 | 7 |
| 7 | 6 |
| 8 | 5 |

(a) Assume there are 150 firms with the same marginal-revenue-product schedules for this particular type of labor. Compute the total or market demand for this labor by completing column 1 in the table below.

|  |  |  |
| --- | --- | --- |
| **(1)**  **Quantity of labor demanded** | **(2)**  **Wage rate** | **(3)**  **Quantity of labor supplied** |
| \_\_\_\_\_ | $12 | 1350 |
| \_\_\_\_\_ | 11 | 1200 |
| \_\_\_\_\_ | 10 | 1050 |
| \_\_\_\_\_ | 9 | 900 |
| \_\_\_\_\_ | 8 | 750 |
| \_\_\_\_\_ | 7 | 600 |
| \_\_\_\_\_ | 6 | 450 |
| \_\_\_\_\_ | 5 | 300 |

(b) What will be the equilibrium wage rate and how many workers will be hired?

(c) What will be the marginal labor cost and wage rate for the individual firm? How many workers will the firm employ?

(d) How would the imposition of a $9 minimum wage rate change the total amount of labor hired in this market?

4. Why does the marginal resource cost exceed the wage rate in the case of a monopsonistic firm? Explain and illustrate with an example.

5. What are the economic effects of imposition of a new occupational license or examination on a labor market?